

# **Preliminary summary of findings of research by the Australian Council for Educational Research into the DECS SA Engagement matrix**

## **About the Engagement matrix**

The Department of Education and Children's Services has a program for young people (Year 6 to 19 years) who have disengaged from school. It is called Innovative Community Action Networks (ICAN). An Engagement matrix was developed to give a snapshot of the levels of engagement of young people in the ICAN program.

The Engagement matrix seeks and overall rating on a five-point scale regarding the engagement of a young person in each of three dimensions:

- Wellbeing
- Relationships
- Involvement in Learning.

Each young person is assigned one of the five levels of engagement per dimension by his or her case manager once a term. Each level in each dimension has a set of indicators - sentences describing typical behaviours. No attempt is made to combine the results.

The Australian Council for Educational Research was engaged to determine the reliability and validity of the Engagement matrix.

The research was conducted in two components, with case managers, teachers and regional staff completing online surveys.

## **Component 1 of the ACER research**

Component 1 of the research examined the labels used for the five-point scale.

It showed that there was significant overlap in the levels of engagement assumed to be represented by the current labels used in the matrix. It also showed a significant range in the interpretation of the current labels. The research indicated that the following proposed labels would minimise overlap and cover the whole scale well.

<b>Current labels for the five-point scale</b>	<b>Proposed labels for the five-point scale</b>
Resistant	Significantly disengaged
Disinterested	Partly disengaged
Compliant	Moderately engaged
Enthusiastic	Very engaged
Proactive	Extremely engaged

## **Component 2 of the ACER research**

Component 2 of the research tested the correlation between the different dimensions and the reliability of the indicators. The research also examined the validity of the matrix by testing correlations with other available engagement data for the young people concerned.

Before testing the indicator statements, some revision and reorganisation of the current indicators occurred.

### **The three dimensions of engagement**

The research showed that:

- Engagement can be measured along the three dimensions: Wellbeing, Relationships and Involvement in Learning.
- These three dimensions are so highly correlated that an overall 'Engagement' scale can be said to be underlying the data. However, using three dimensions for engagement better reflects the data obtained, than using a single measure of engagement.
- The reliability with which the three dimensions, and the overall Engagement scale, are measured is very high.

### **Groups of indicators**

A large majority of the ninety indicator statements tested relate well to the relevant dimension. However, there were two groups of indicators (as well as a few individual indicators), which did not discriminate sufficiently between young people with higher and lower levels of engagement.

#### Integration into community (within the 'Relationships' domain)

In the research, teachers and case managers were not able to use this group of five indicators to discriminate sufficiently between young people's levels of engagement. The reason for this is not known. It may be that integration into community is an important guide to engagement, but these users do not know enough about the 'outside' life of young people to rate them appropriately.

As a result it is proposed to remove the 'Integration into community' group of indicators from the matrix.

#### Literacy/Numeracy levels (within the 'Involvement in learning' domain)

Again, the data showed that users had difficulty using this group of indicators to adequately discriminate between young people. We cannot say with certainty why this happened. Teacher raters probably had a good notion of their young person's literacy and numeracy skills, but perhaps the problem arose from case manager raters not knowing the levels accurately. Unfortunately the sample size did not allow ACER to test this possible difference. Once *Compass* is firmly in place, all matrix users should have good information about literacy and numeracy levels. Also, the result here is more borderline than the one for 'Integration into the community'. Furthermore, there would be general agreement that this aspect of involvement in learning should be included in an Engagement matrix.

For all these reasons, it is proposed to retain this group of indicators in the matrix.

### **Individual indicators**

If the 'Integration into community' group of indicators is removed from the matrix, there remain six individual indicators, which were found to be not significantly related to an underlying measure of engagement. Examination of these items shows that some could be improved by making them simpler. Others need changes to make them more different from other indicators.

ACER advises that, although these proposed modified indicators were not tested, all remaining items tested correlate very highly and the likely net result of making these changes to the six indicators will be to further improve the Engagement matrix.

### **Validity of the Engagement matrix**

There is a paucity of quantitative data about engagement for young people involved in the ICAN program. It is therefore difficult to ascertain the concurrent validity of the Engagement matrix. In terms of construct validity, a small positive correlation was found between the expectations of case managers regarding the likely amount of time young people would be involved in ICAN learning activities and subsequent Engagement matrix ratings of these young people. Also, the high correlations between the three dimensions further support the validity of the Engagement matrix as they indicate that the theoretically assumed constructs underlying engagement are indeed related empirically.

The high correlations between the different dimensions means that numbers could be assigned to individual levels in each dimension and the numbers added together to give an overall score.

The above summary has been checked for accuracy by Dr Petra Lietz, Principal Research Fellow, Australian Council for Educational Research.

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